

First records of the endemic *Polyommatus golgus* (HÜBNER, 1913) and *Agriades zullichi* (HEMMING, 1933) in Almería province

(E. Sierra Nevada, S. Spain)

(Lepidoptera, Lycaenidae)

by

SALVADOR IBAÑEZ & FELIPE GIL-T.

received 26.XII.2008

Resumen: La distribución conocida de las especies endémicas y locales *Polyommatus golgus* (HÜBNER, 1913) y *Agriades zullichi* (HEMMING, 1933), de acuerdo a la bibliografía existente, estaba limitada a la provincia de Granada (E. Sierra Nevada). En este artículo, por primera vez, las anteriores especies son registradas en la provincia de Almería (este de Sierra Nevada, E. de Andalucía): 3 nuevas colonias (en 2 cuadrículas UTM 10 x 10 km) para cada especie.

Abstract: According to the existing bibliography, in Spain the current distributions of the endemic and local species *Polyommatus golgus* (HÜBNER, 1913) and *Agriades zullichi* (HEMMING, 1933) are limited to Granada province (west and center of Sierra Nevada). But in this paper, for the first time, new records are published from Almeria province (E. Sierra Nevada, E. Andalusia Region, S. Spain): Three new colonies are reported (in two UTM 10 x 10 km grids) for each species.

Zusammenfassung: Nach den bisherigen Literaturangaben ist das Vorkommen der lokalen und endemischen Arten *Polyommatus golgus* (HÜBNER, 1913) und *Agriades zullichi* (HEMMING, 1933) auf die Provinz Granada (westliche und zentrale Sierra Nevada) beschränkt. In diesem Beitrag werden erstmals Nachweise von je drei Kolonien der beiden Arten aus der Provinz Almeria (E. Sierra Nevada, E. Andalusia Region, S. Spain) veröffentlicht und in einer Verbreitungskarte, in zwei UTM Quadranten von 10 x 10 km Kantenlänge, dargestellt.

Introduction: These two species are included in several Red Data Books of invertebrates under the category (UICN) of "in danger". Up until now *P. golgus* (HBN.) (col. pl. 4: 1) has only been known from colonies distributed in eight UTM 10 x 10 km grids (fig. 3). It is of interest to point out that in all of the published references the host plant of this species has been incorrectly identified, this being recently corrected in Gil-T. (2007); the accurate identification is *Anthyllis vulneraria pseudoarundana* (and not *Anthyllis vulneraria arundana*), in Spain a plant which is exclusive to the Sierra Nevada.

Agriades zullichi (HEMMING) (col. pl. 4: 2) is considered by some authors, eg., in TOLMAN & LEWINGTON (1997), to be a subspecies of *Agriades glandon* (PRUNNER, 1798). Other writers consider it to be a totally different species, this being based on its geographical isolation, etiology, and characteristic morphology (col. pl. 4: 2). A molecular study (DNA sequencing) would be necessary to confirm its final taxonomic status. Its host plant is *Androsace vittalana nevadensis*. Up until now populations were only known from Granada province, in small colonies distributed in five UTM 10 x 10 km. grids (fig. 3). The last published localities for this taxon were in TRAVESÍ et al (2008) - this being the present-day distribution - and all colonies were situated in Granada province.

New localities: We have found three new colonies for each of the two species, situated in two UTM 10 x 10 km grids (see fig. 3): One colony is located in the left grid (30SWG00) and two others in the right grid (30SWG10). All of these colonies are small, extending to about 50 square meters for *A. zullichi* (HEMMING) and to a hectare for *P. golgus* (HBN.).

The most western colony of *A. zullichii* (HEMMING) (in 30SWG10) is located near Mt. Buitre, at an altitude of about 2400 m, which is the lowest elevation mentioned for this taxon (maximum altitude: more than 3000 m). Note: in the grid 30SWG00, shared by Granada and Almeria provinces [fig. 3, see map for *A. zullichii* (HEMMING)], this taxon had been previously reported from the area corresponding to Granada province, but there are no published records from Almeria.

The previous right grid mentioned (30SWG10) coincides with the new western boundary known for *Erebia hispania* (BUTLER, 1868) in Sierra Nevada, according to the new information given on the distribution of this species in GIL-T. (2005).

We have only taken into consideration the distribution given in fig. 3 for *P. golgus* (HBN.), as we do not agree with the criteria and opinions expressed by TOLMAN & LEWINGTON (1997) in considering *Polyommatus sagratrox* (AISTLEITNER, 1986) to be a subspecies of *P. golgus* (HBN.), as published in the references in GIL-T. (2003, 2007) and GIL-T. & IBAÑEZ (2009).

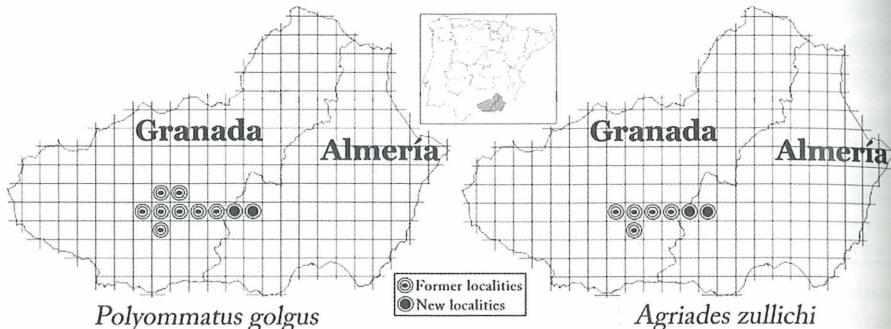


Fig. 3: Distribution and new localities of *Polyommatus golgus* (HÜBNER, 1913) und *Agriades zullichii* (HEMMING, 1933).

Acknowledgement: I would like to express our sincere thanks to our friend RAFAEL ESTEVEZ RODRIGUEZ (E-Vigo, Pontevedra) for his valuable help in translating the Spanish text of this paper into English.

References

GIL-T., F. (2003): *Polyommatus (Plebicula) sagratrox* (AISTLEITNER, 1986): ecology, compared morphology of its preimaginal stages with those of *Polyommatus (Plebicula) golgus* (HÜBNER, 1813), taxonomy and new arguments for its specific validity (Lepidoptera, Lycaenidae). - Bol. Soc. Ent. Aragonesa **33**: 219-227, Zaragoza.

GIL-T., F. (2005): Addenda and corrigenda to the “Atlas of the butterflies of the Iberian Peninsula and Balearic islands” (GARCÍA-BARROS et al., 2004) from Granada. - Soc. Andaluza Ent. **13**: 16-43, Córdoba, Spain.

GIL-T., F. (2007): The correct hostplant of *Polyommatus golgus* (HÜBNER, 1813): *Anthyllis vulneraria pseudoarundana* (Lepidoptera: Lycaenidae). - Atalanta **38** (1/2): 199-202, Würzburg.

GIL-T. F. & S. IBAÑEZ (2009): New localities of *Polyommatus sagratrox* (AISTLEITNER, 1986) and *Pseudochazara hippolyte* (ESPER, 1783) in Granada province (S. Spain) and considerations on the taxonomic status of the first species. - Atalanta **40** (1/2): 185-190, Würzburg.

KUDRNA, O. (1986): Butterflies of Europe **9**. Aspects of the conservation of butterflies in Europe. - Aula-Verlag, Wiesbaden.

TOLMAN, T. & R. LEWINGTON (1997): Butterflies of Britain & Europe. - Harper Collins Publishers, London.

TRAVESÍ, R., PÉREZ-LÓPEZ, F. J., BAREA, J. M. & F. FUENTES (2008): *Agriades zullichii* HEMMING, 1930. In: Red Book of the Invertebrates of Andalusia: 1115-1119. - Ed. Junta de Andalucía (Regional Government), Granada, Spain.

Address of the authors

SALVADOR IBAÑEZ & FELIPE GIL-T.

Apartado postal 3042, E-18080 Granada, Spain

Colour plate 4/ Farbtafel 4

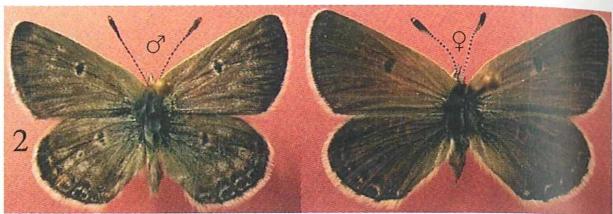


Fig. 1: ♂ of *Polyommatus golgus* (HÜBNER, 1913).

Fig. 2: Both sexes of *Agriades zullichi* (HEMMING, 1933).

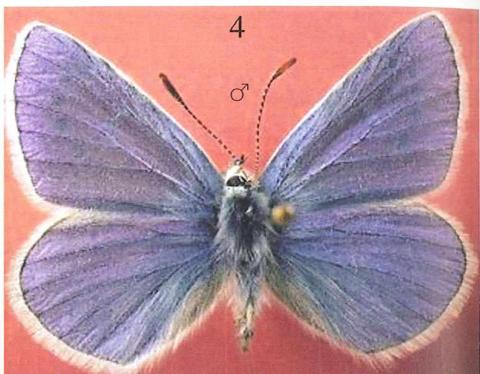


Fig. 3: *Pseudochazara hippolyte* (EESPER, 1783) in its new locality.

Fig. 4: Both sexes of *Polyommatus (Plebicula) sagratrox* (AISTLEITNER, 1986).